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|-------------------------------|------------------------|---------------------|--|
| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/050,881 | MIYAUCHI ET AL. | |
| | Examiner | Art Unit | |
| | Joseph P. Martinez | 2873 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8-10-05.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
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DETAILED ACTION

Allowable Subject Matter

Claims 1-17 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art taken alone or in combination fails to anticipate or fairly suggest the limitations of the claims, in such a manner that a rejection under 35 USC 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in independent claims 1 and 11.

Specifically regarding claim 1, Braat et al. (5071237) teaches the state of the art of a zoom lens for an electronic camera.

But, Braat et al. fails to explicitly teach an angle between the farthest-off-axis chief ray incident on the farthest off-axis site on an image pickup plane of said electronic image pickup device and an axial chief ray incident on the center of said image pickup plane satisfies the following conditions (1) and (2), and said image pickup device satisfies the following condition (3):

$$36^{\circ} < \omega_{W1} < 60^{\circ} \quad \dots(1)$$

$$-15^{\circ} < \omega_{W0} < 10^{\circ} \quad \dots(2)$$

$$3.5 < N < 20 \text{ (in million)} \quad \dots(3)$$

where ω_{W1} an angle between a direction of incidence of said axial chief ray and a direction of incidence of said farthest-off-axis chief ray on an entrance plane of said image-formation optical system or, alternatively, at a wide-angle end when said image-formation optical system is a zoom optical system, ω_{W0} is an angle between a direction

emergence of said axial chief ray and a direction of emergence of said farthest-off-axis ray on an exit plane of said image-formation optical system or, alternatively, a wide-angle end when said image-formation optical system is a zoom optical system with the proviso that a sign for the direction of emergence light away from an optical axis thereof is negative, and N is an effective number of pixels of said electronic image pickup device (in million) or a maximum number of recording pixels by a signal processing (in million), as claimed.

Specifically regarding claim 11, Braat et al. (5071237) teaches the state of the art of a zoom lens for an electronic camera.

But, Braat et al. fails to explicitly teach an angle between the farthest-off-axis chief ray incident on the farthest off-axis site on an image pickup plane of said electronic image pickup device and an axial chief ray incident on the center of said image pickup plane satisfies the following conditions (1), and said image pickup device satisfies the following condition (3):

$$36^{\circ} < \omega_{W1} < 60^{\circ} \quad \dots(1)$$

$$3.5 < N < 20 \text{ (in millions)} \quad \dots(3)$$

where ω_{W1} an angle between a direction of incidence of said axial chief ray and a direction of incidence of said farthest-off-axis chief ray on an entrance plane of said image-formation optical system or, alternatively, at a wide-angle end when said image-formation optical system is a zoom optical system, and N is an effective number of pixels of said electronic image pickup device (in millions), as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

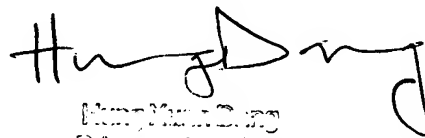
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph P. Martinez whose telephone number is 571-272-2335. The examiner can normally be reached on M-F 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM
12-9-05



JOSEPH P. MARTINEZ
Examiner